



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

June 24, 2013

Ms. Pierina N. Fayish
NEPA Document Manager
National Energy Technology Laboratory
U.S. Department of Energy
P.O. Box 10940
Pittsburgh, PA 15236

Dear Ms. Fayish:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) prepared by the U.S. Department of Energy (DOE) for the Lake Charles Carbon Capture and Sequestration Project located in Calcasieu Parish, Louisiana. This document was prepared in accordance with the NEPA and applicable implementing regulations.

Based upon our analysis, EPA rates the DEIS as "EC-2" (**Environmental Concerns-Request for Additional Information**). The "EC" rating is based on appropriate wetland Section 404 permitting, air quality impacts and mitigation. The "2" indicates the DEIS does not contain sufficient information in the areas of air quality, wetland permitting, environmental justice and tribal consultation. The EPA's Rating System Criteria can be found here: <http://www.epa.gov/oecaerth/nepa/comments/rating.html>.

Detailed comments on the DEIS are enclosed with this letter which more clearly identifies EPA's concerns and the information requested for incorporation into the Final EIS (FEIS). Responses to our comments should be placed in a dedicated section of the FEIS and should specify the specific location in the FEIS where the revision, if any, was made. If no revision was made, a clear explanation should be included.

EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS, and an internet link, when it is sent to the Office of Federal Activities, EPA (Mail Code 2252A), Ariel Rios Federal Building, 1200 Pennsylvania Ave, N.W., Washington, D.C. 20004. Our classification will be published on the EPA website, www.epa.gov, according to our responsibility under Section 309 of the CAA to inform the public of our views on proposed Federal actions. If you have any questions or concerns, please contact me or Michael Jansky of my staff by e-mail at smith.rhonda@epa.gov or jansky.michael@epa.gov or by phone at 214-665-8006 or 214-665-7451, respectively, for assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Rhonda Smith", is written over a horizontal line.

Rhonda Smith, Chief
Office of Planning and
Coordination

Enclosure

**DETAILED COMMENTS
ON THE
DEPARTMENT OF ENERGY
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE PROPOSED
LAKE CHARLES CARBON CAPTURE AND SEQUESTRATION PROJECT
LOUISIANA AND TEXAS**

BACKGROUND

The Department of Energy (DOE) prepared this Draft Environmental Impact Statement (DEIS) to assess the potential environmental impacts associated with the proposed action to provide financial assistance to Leucadia Energy, LLC to construct the Lake Charles Carbon Capture and Sequestration (CCS) project. DOE's Industrial Carbon Capture and Sequestration (ICCS) Program provides financial assistance to support construction and operation of Leucadia's Lake Charles CCS project. DOE proposes to provide Leucadia with up to \$261.4 million, which would constitute about 60 percent of the estimated \$435.6 million total development and capital cost of the project.

The Lake Charles CCS project would demonstrate the capture of carbon dioxide from an industrial facility for use in an existing, commercial enhanced oil recovery (EOR) operation in the West Hastings oil field. Leucadia would build, own and operate the Lake Charles Clean Energy (LCCE) Gasification plant, a petroleum coke ("pet coke") gasification facility in Calcasieu Parish, adjacent to the Port of Lake Charles, Louisiana. The following comments are now offered for your consideration for preparing the Final EIS (FEIS).

COMMENTS

Wetlands

This proposed project requires a permit from the New Orleans District Corps of Engineers which is required under Section 404 of the Clean Water Act. Approximately 19 acres of wetlands would be impacted by the proposed project facility and approximately 73.34 acres of wetlands would be impacted by connected action, an eleven (11) mile pipeline. EPA has concern with the DOE's proposal to separately permit each pipeline crossing as a single and complete project" under Nationwide Permit # 12. We believe the pipeline is integral to the system described; *but for* the proposed processing facilities the pipeline would not exist. The pipeline does not have "independent utility", as defined in the regulations, since it would not be constructed absent the construction of other projects in the project area" (e.g. the processing facilities).

Recommendation:

It is EPA's position the pipeline crossings cannot be considered within the definition for "single and complete project" as defined at 33 CFR 330.2(i). As such, impacts of the pipeline and other facilities associated with the proposed project must all be evaluated

and included within the CWA 404(b)(1) Guidelines Analysis, and all wetland impacts must be mitigated under the one individual CWA 404 permit for the project. We ask for detailed discussion on the matter in the FEIS.

Air Quality

Summary Section, Lake Charles CCS Project CO₂ Pipeline, Page 15: This section of the DEIS discusses the emissions during construction of the CO₂ pipeline. The DEIS further states that wastes generated during construction of the proposed CO₂ pipeline would *primarily* consist of nonhazardous materials and that Denbury which owns interest in the West Hastings oil field, would arrange for acceptable off-site disposal.

Recommendation:

Although EPA acknowledges that the potential environmental impacts of the project will be addressed by the applicable permitting authorities (e.g., Texas Commission on Environmental Quality (TCEQ), Louisiana Department of Environmental Quality (LDEQ) and EPA Region 6) through the various permitting actions, approvals and studies as required by law, EPA recommends the FEIS provide more detailed discussion of waste disposal, specifically as it relates to the disposal of hazardous materials be included in the FEIS. Any potential air quality related impacts from disposal and associated transport activities should be discussed.

Environmental Consequences Section, 4.1 Introduction, Page 4-1: This section of the DEIS discusses the potential direct and indirect environmental impacts that would likely result from the proposed project. The DEIS states that the exact location of the equipment laydown and methanol/sulfuric acid storage area would have minor relevance to the evaluation of reasonably foreseeable adverse impacts in the environment.

Recommendation:

EPA does not concur with this statement and recommends that the laydown area be identified and studied. A more detailed discussion should be presented regarding safeguards against any possible adverse air impacts associated with the storage of methanol and sulfuric acid, and identify persons at risk, including construction and plant personnel. Specifics should include a discussion of all applicable requirements for storage of these materials. Further discussion on this matter should be included in the FEIS.

Section 4.2 – Climate and Air Quality, Page 4-3: This section of the DEIS states that direct project impacts to ambient air quality will be temporary, primarily due to construction equipment emissions and airborne particulate matter/fugitive dust. The DEIS further states that air pollutant emissions from construction of the off-site pipelines and CO₂ pipelines would likely occur simultaneously for a three month period and overlap with the LCCE Gasification plant and Lake Charles CCS project 40 month construction and commissioning schedule.

Recommendation:

EPA recommends that, in addition to all applicable local, state, or federal requirements, the following mitigation measures be included as applicable in a construction emissions mitigation plan or similar document in order to reduce air quality impacts associated with emissions of Nitrous Oxide (NO_x), Carbon Monoxide (CO), Carbon Dioxide (CO₂), Particulate Matter (PM), Sulfur Dioxide (SO₂) and other pollutants from construction-related activities:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at active and inactive sites during workdays, weekends, holidays, and windy conditions;
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions; and
- Prevent spillage when hauling material and operating non-earthmoving equipment and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Plan construction scheduling to minimize vehicle trips;
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections;
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
- If practicable, utilize new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible;
- Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and
- Consider alternative fuels and energy sources such as natural gas and electricity (plug-in or battery).

Administrative Controls:

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;
- Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips; and
- Identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).

Environmental Justice

The DEIS states that the DOE environmental justice analysis included consideration of whether the proposed project would cause a significant and disproportionately high and adverse effect on minority or low-income populations. Regarding the CO2 pipeline route, 14 census block groups in Census Tract 27 were identified as potential environmental justice areas.

Recommendation:

The FEIS should provide information on communications, outreach, programs, and procedures that will be implemented to specifically mitigate impacts to vulnerable populations.

Mossville, Louisiana, is a predominantly African American environmental justice community near Lake Charles. EPA Region 6 has worked with Mossville since 1997 on health concerns, dioxin contamination, drinking water quality, flaring and releases by industry, and safety concerns due to proximity to industry. The DEIS indicates the proposed CO2 pipeline route is near Mossville.

Recommendation:

The FEIS should provide information supporting that coordination has occurred with this community to discuss any potential impacts.

The DEIS states that there was consultation with federally recognized Native American tribes, but it does not indicate any coordination with state-recognized tribes such as the United Houma Nation in its environmental justice assessment. The proposed CO2 pipeline is located in a rural, sparsely populated area including eight residences within 50 feet of the right-of-way. The DEIS does not indicate whether the residents of these 8 homes are identified as low income and/or minority, and therefore needing additional mitigation measures.

Recommendation:

DOE should coordinate with state-recognized tribes like the United Houma Nation and other local officials to discuss the project, potential impacts, and mitigation opportunities. DOE should provide information and training sessions on emergency procedures for residences living 50 feet of the right-of-way. DOE should also analyze appropriate socioeconomic information in order to determine whether these eight residences are a potential environmental justice area. DOE should then identify and implement any additional mitigation measures.

Tribal Consultation

EPA finds that the DEIS demonstrates that reasonable efforts were made by DOE to identify federally recognized tribes and tribal resources potentially affected by the proposed

project. It appears that tribal officials for each tribe have been contacted for government-to-government consultation.

Recommendation:

EPA recommends that DOE continue to include all appropriate Native American tribes throughout the phases of the project.

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